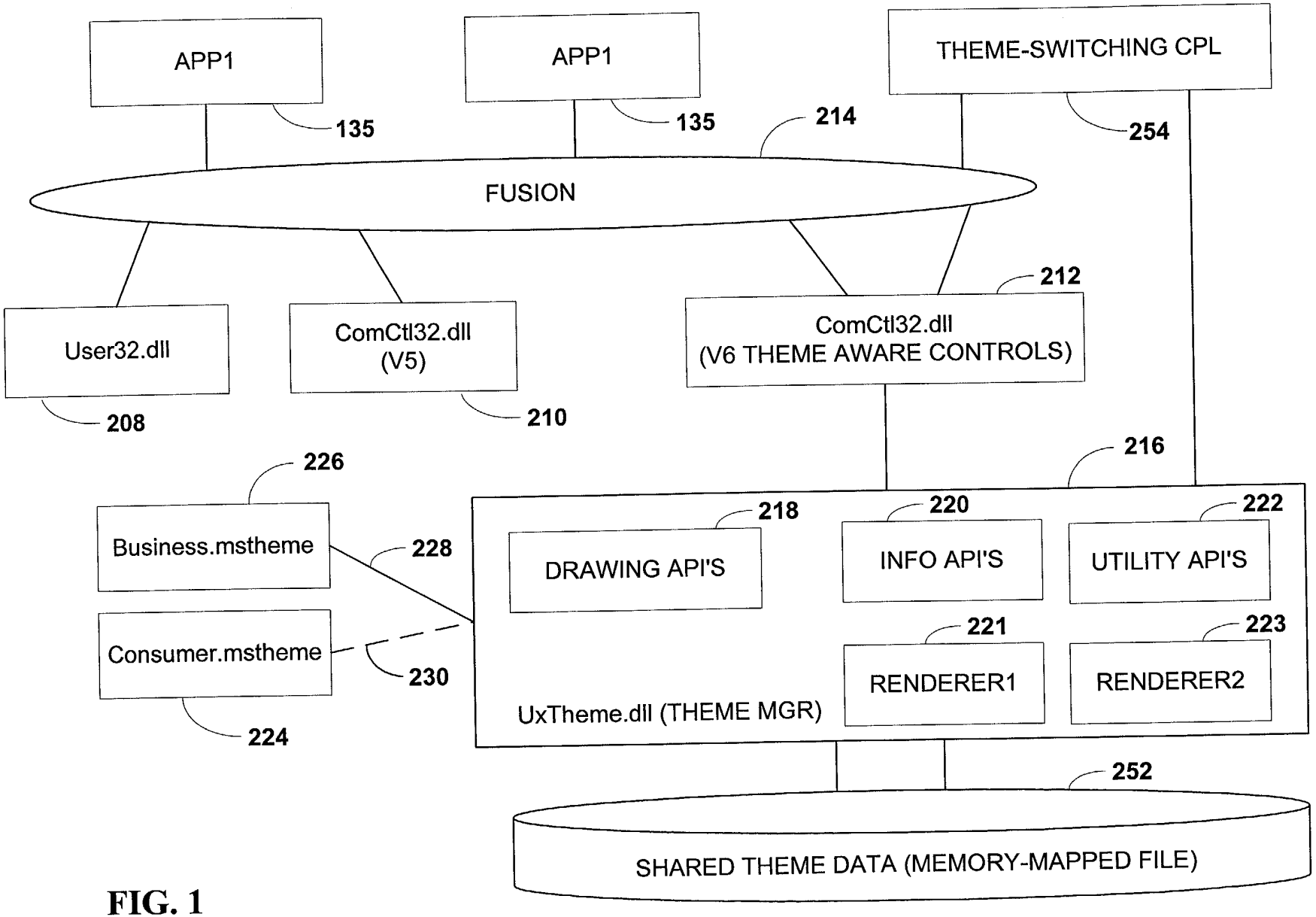
APP1
APP1
THEME-SWITCHING CPL
135
135
214
254
FUSION
User32.dll
ComCtl32.dll
(V5)
ComCtl32.dll
(V6 THEME AWARE CONTROLS)
212
208
210
216
226
Business.mstheme
228
218
220
222
DRAWING API'S
INFO API'S
UTILITY API'S
Consumer.mstheme
230
221
223
RENDERER1
RENDERER2
UxTheme.dll (THEME MGR)
224
252
SHARED THEME DATA (MEMORY-MAPPED FILE)

FIG. 1

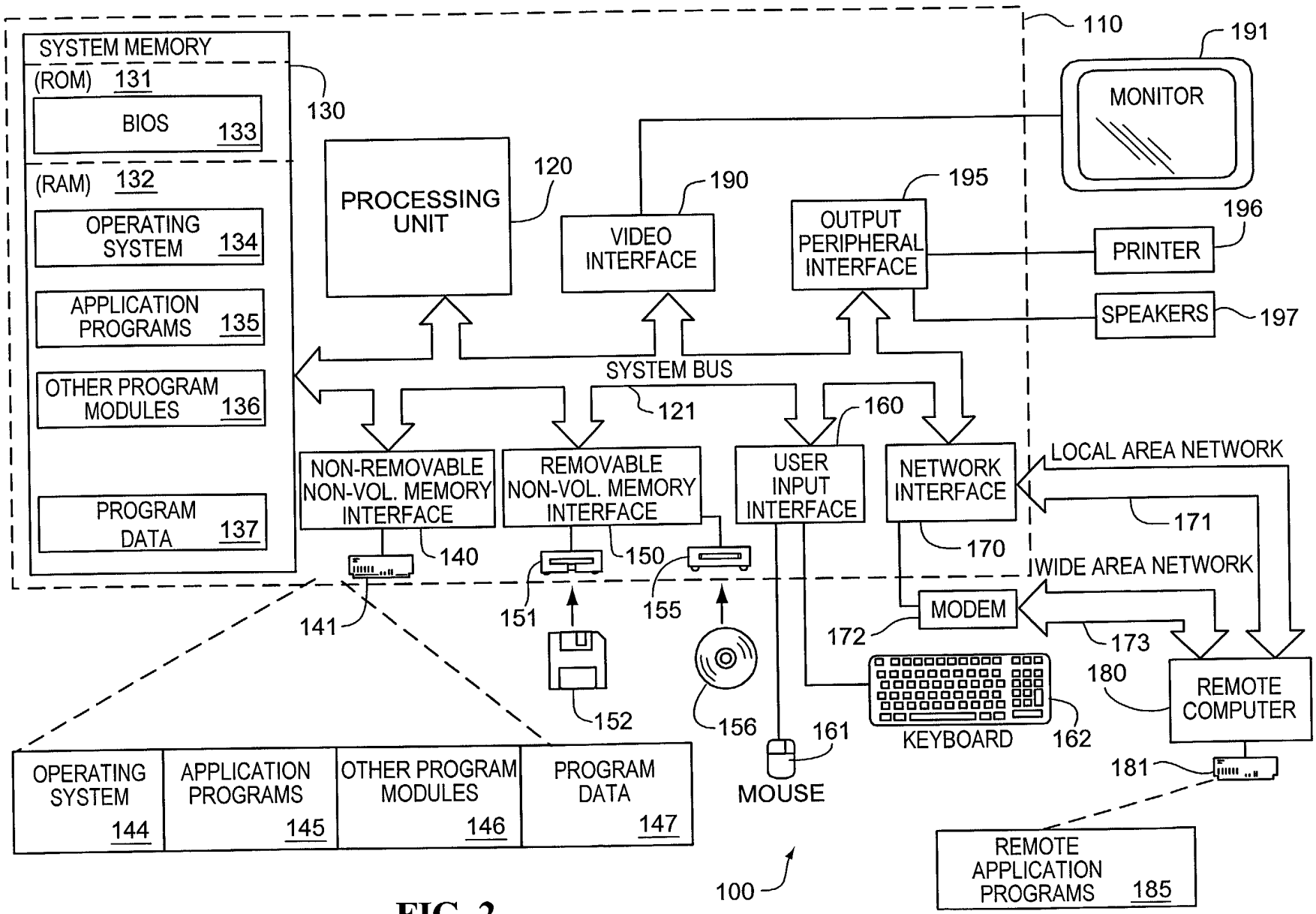
SYSTEM MEMORY
(ROM) 131
BIOS 133
(RAM) 132
OPERATING SYSTEM 134
APPLICATION PROGRAMS 135
OTHER PROGRAM MODULES 136
PROGRAM DATA 137
130
PROCESSING UNIT
120
VIDEO INTERFACE
190
OUTPUT PERIPHERAL INTERFACE
195
MONITOR
191
PRINTER
196
SPEAKERS
197
110
SYSTEM BUS
121
NON-REMOVABLE NON-VOL. MEMORY INTERFACE
REMOVABLE NON-VOL. MEMORY INTERFACE
USER INPUT INTERFACE
160
NETWORK INTERFACE
LOCAL AREA NETWORK
171
170
WIDE AREA NETWORK
MODEM
172
173
140
150
141
151
155
152
156
161
MOUSE
KEYBOARD
162
180
REMOTE COMPUTER
181
OPERATING SYSTEM 144
APPLICATION PROGRAMS 145
OTHER PROGRAM MODULES 146
PROGRAM DATA 147
100
REMOTE APPLICATION PROGRAMS 185

FIG. 2

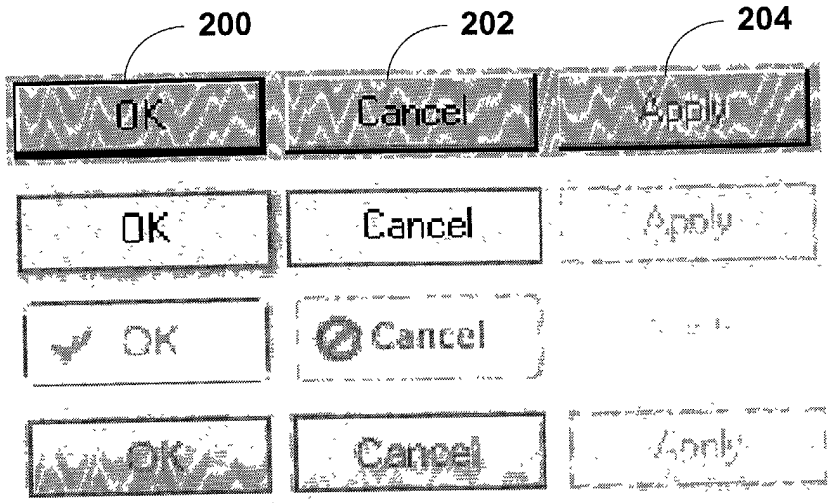
200
202
204
OK
Cancel
Apply
OK
Cancel
Apply
OK
Cancel
OK
Cancel
Apply

FIG. 3

Redacted

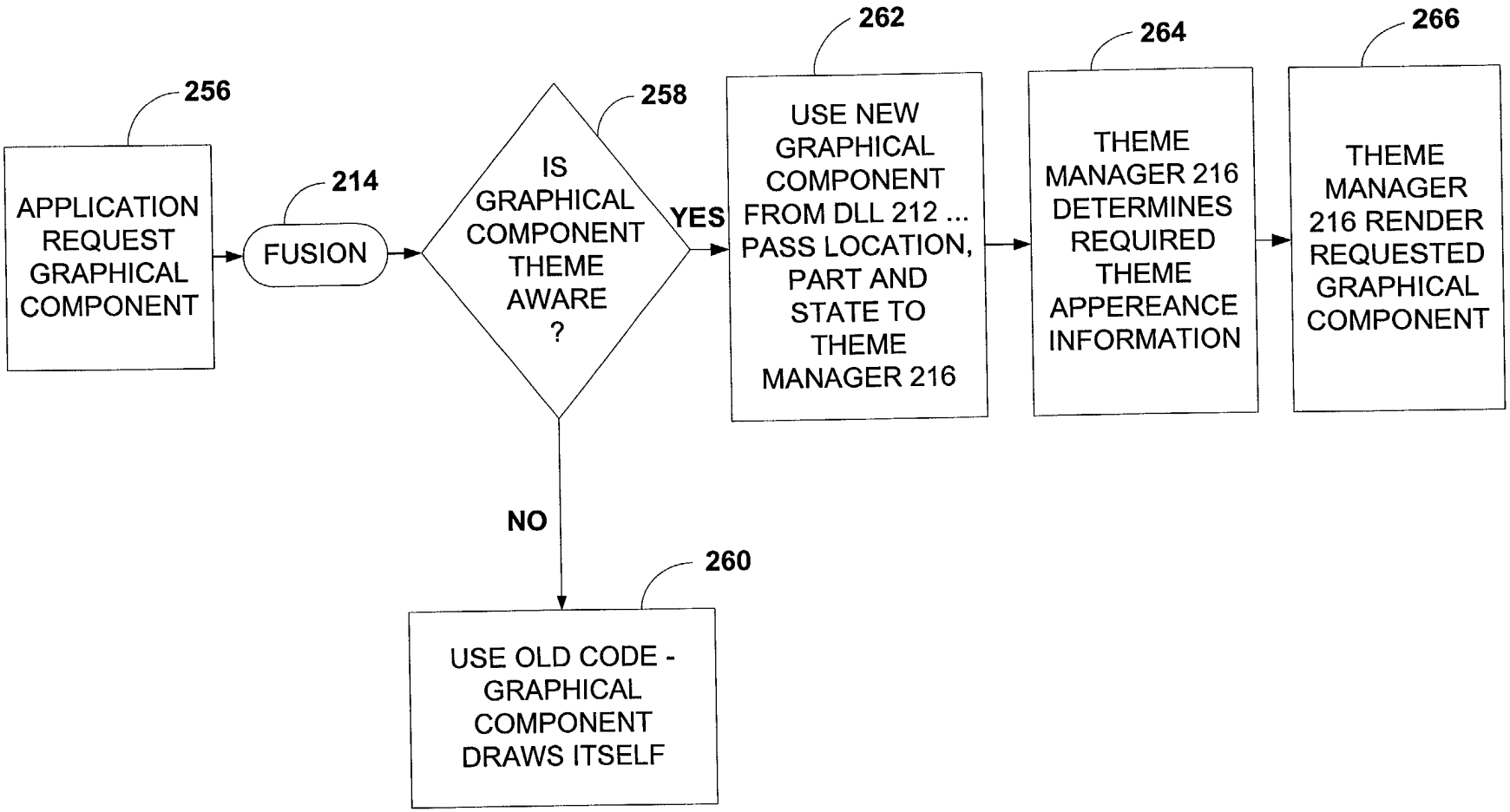

FIG. 4

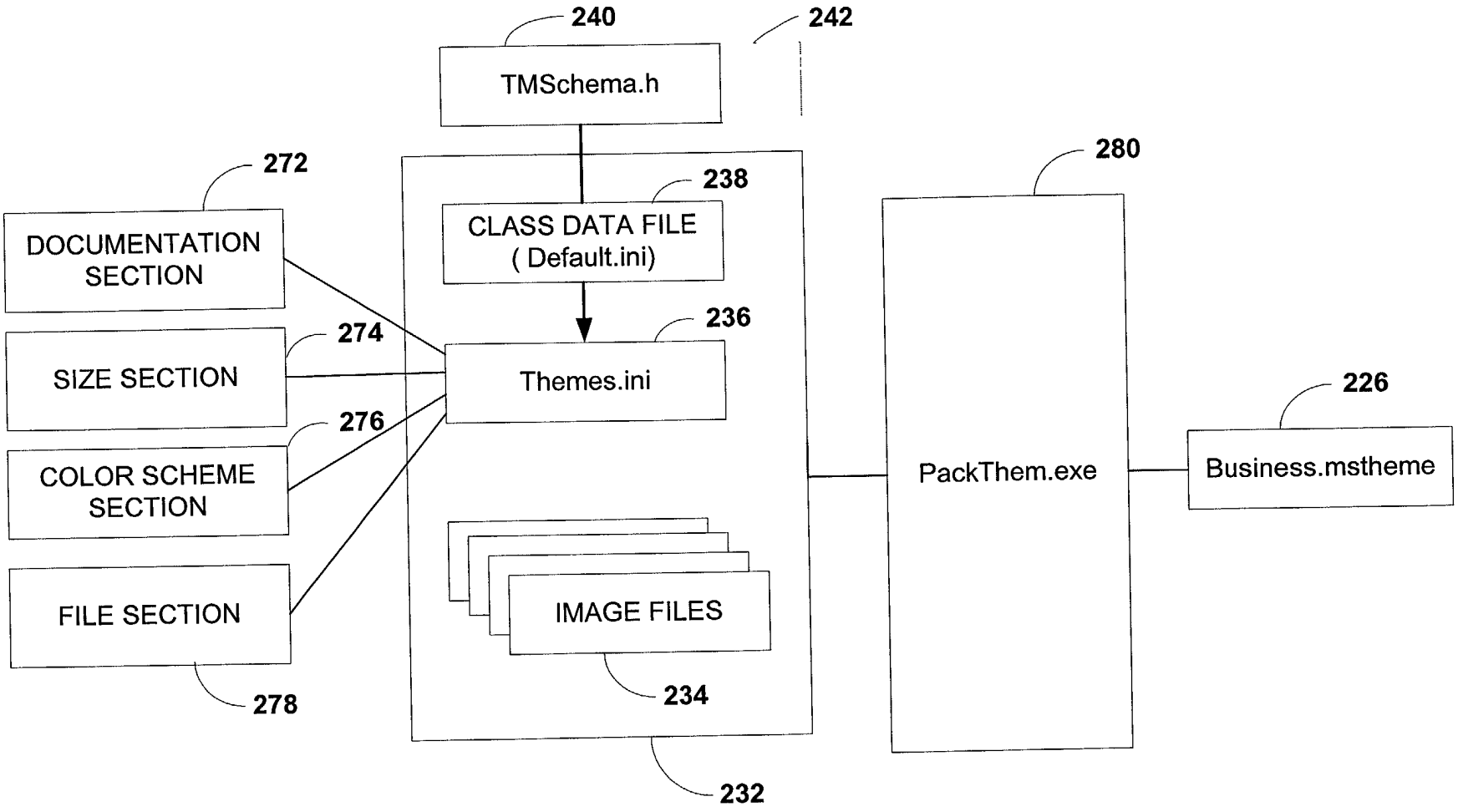
240
242
TMSchema.h
272
DOCUMENTATION SECTION
238
CLASS DATA FILE (Default.ini)
280
274
SIZE SECTION
236
Themes.ini
226
276
COLOR SCHEME SECTION
PackThem.exe
Business.mstheme
FILE SECTION
IMAGE FILES
278
234
232

FIG. 5

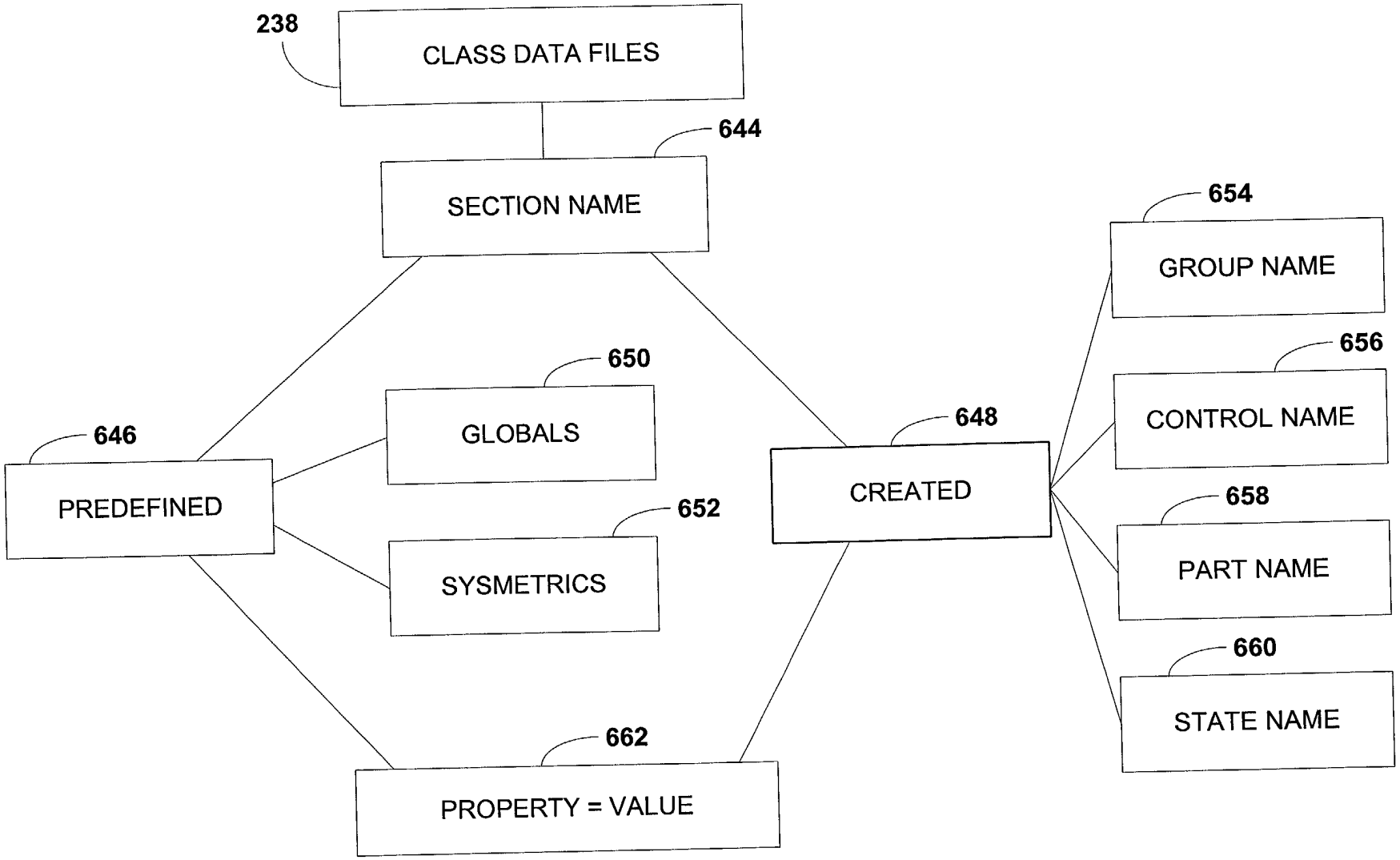
238
CLASS DATA FILES
644
SECTION NAME
654
GROUP NAME
656
CONTROL NAME
658
PART NAME
660
STATE NAME
650
GLOBALS
652
SYSMETRICS
646
PREDEFINED
648
CREATED
662
PROPERTY = VALUE

FIG. 6

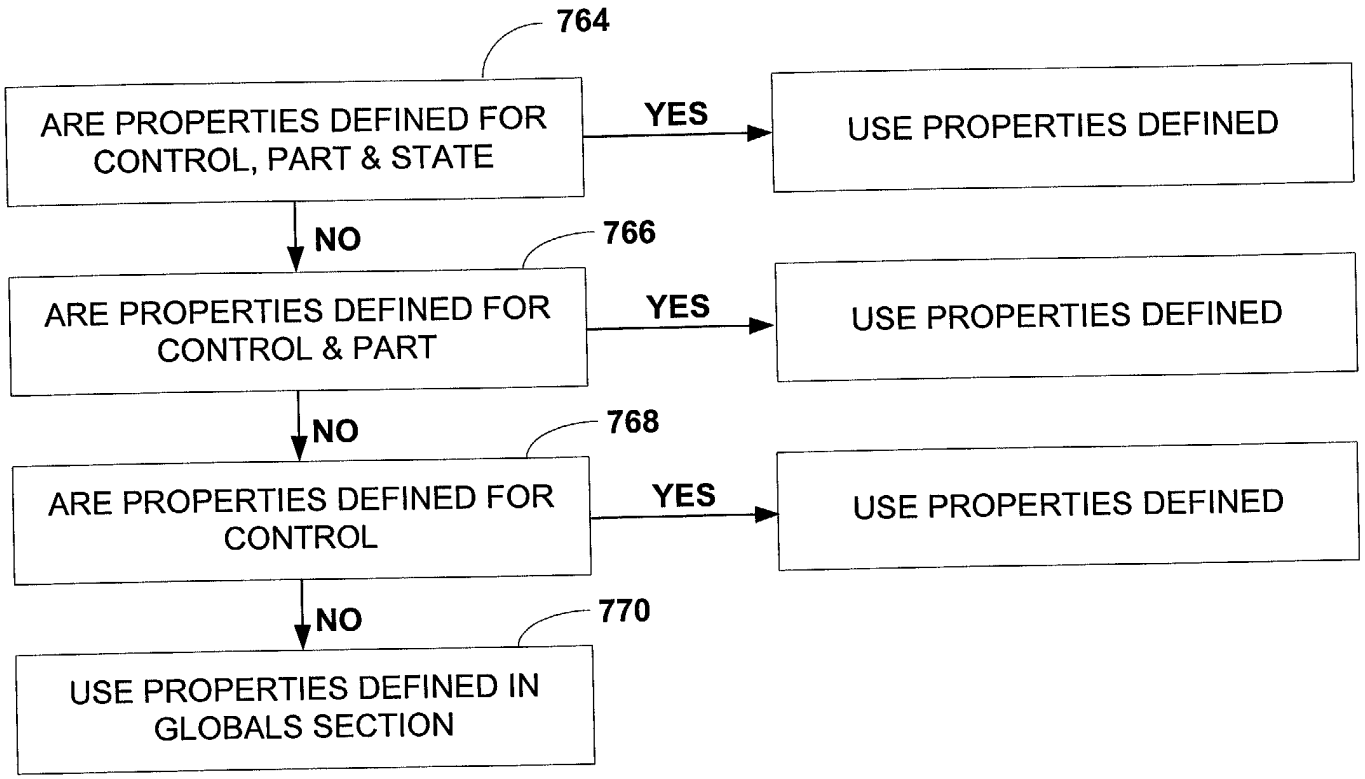
764
ARE PROPERTIES DEFINED FOR CONTROL, PART & STATE
YES
USE PROPERTIES DEFINED
NO
766
ARE PROPERTIES DEFINED FOR CONTROL & PART
YES
USE PROPERTIES DEFINED
NO
768
ARE PROPERTIES DEFINED FOR CONTROL
YES
USE PROPERTIES DEFINED
NO
770
USE PROPERTIES DEFINED IN GLOBALS SECTION

FIG. 7

Patented Process

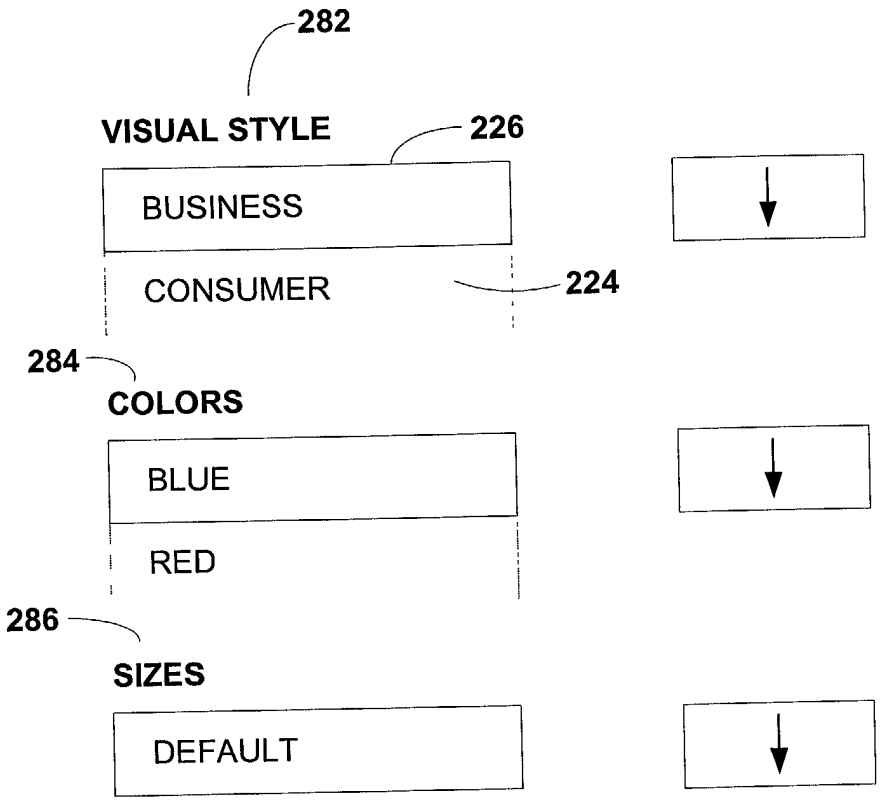

FIG. 8

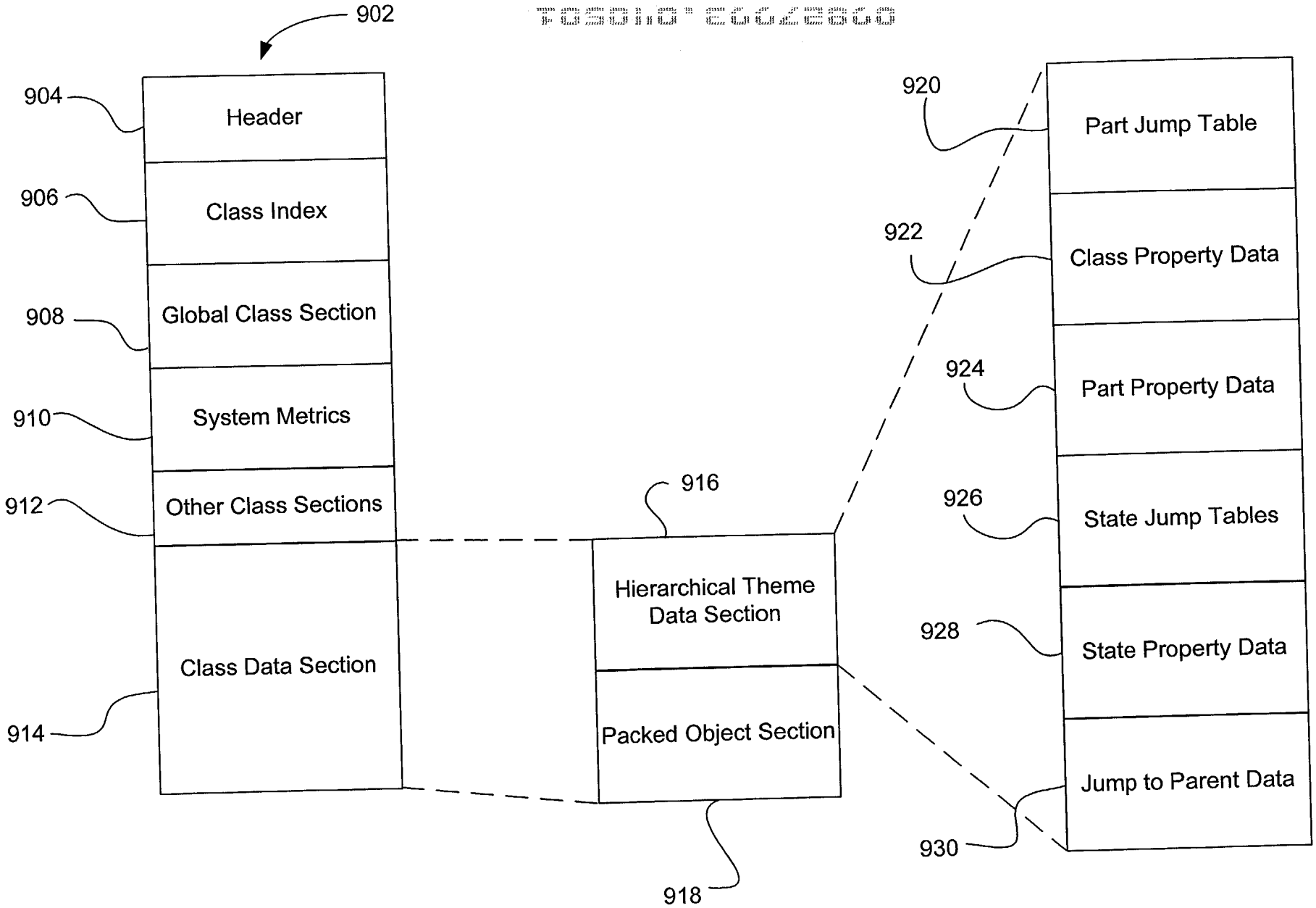
902
904
Header
906
Class Index
908
Global Class Section
910
System Metrics
912
Other Class Sections
914
Class Data Section
916
Hierarchical Theme Data Section
Packed Object Section
918
920
Part Jump Table
922
Class Property Data
924
Part Property Data
926
State Jump Tables
928
State Property Data
Jump to Parent Data
930

FIG. 9(a)

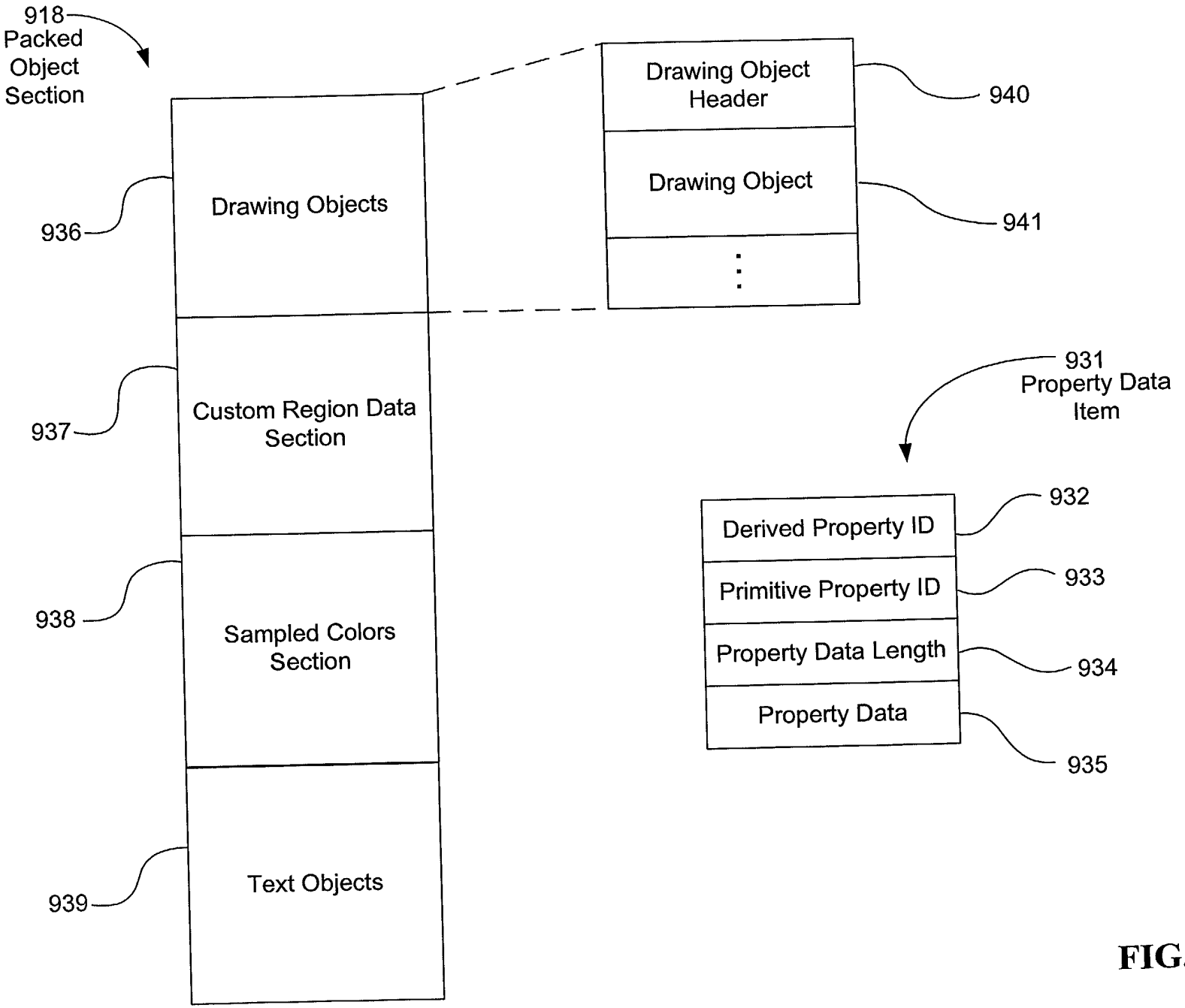
918
Packed
Object
Section
Drawing Objects
936
Custom Region Data
Section
937
Sampled Colors
Section
938
Text Objects
939
Drawing Object
Header
940
Drawing Object
941
931
Property Data
Item
Derived Property ID
932
Primitive Property ID
933
Property Data Length
934
Property Data
935

FIG. 9(b)

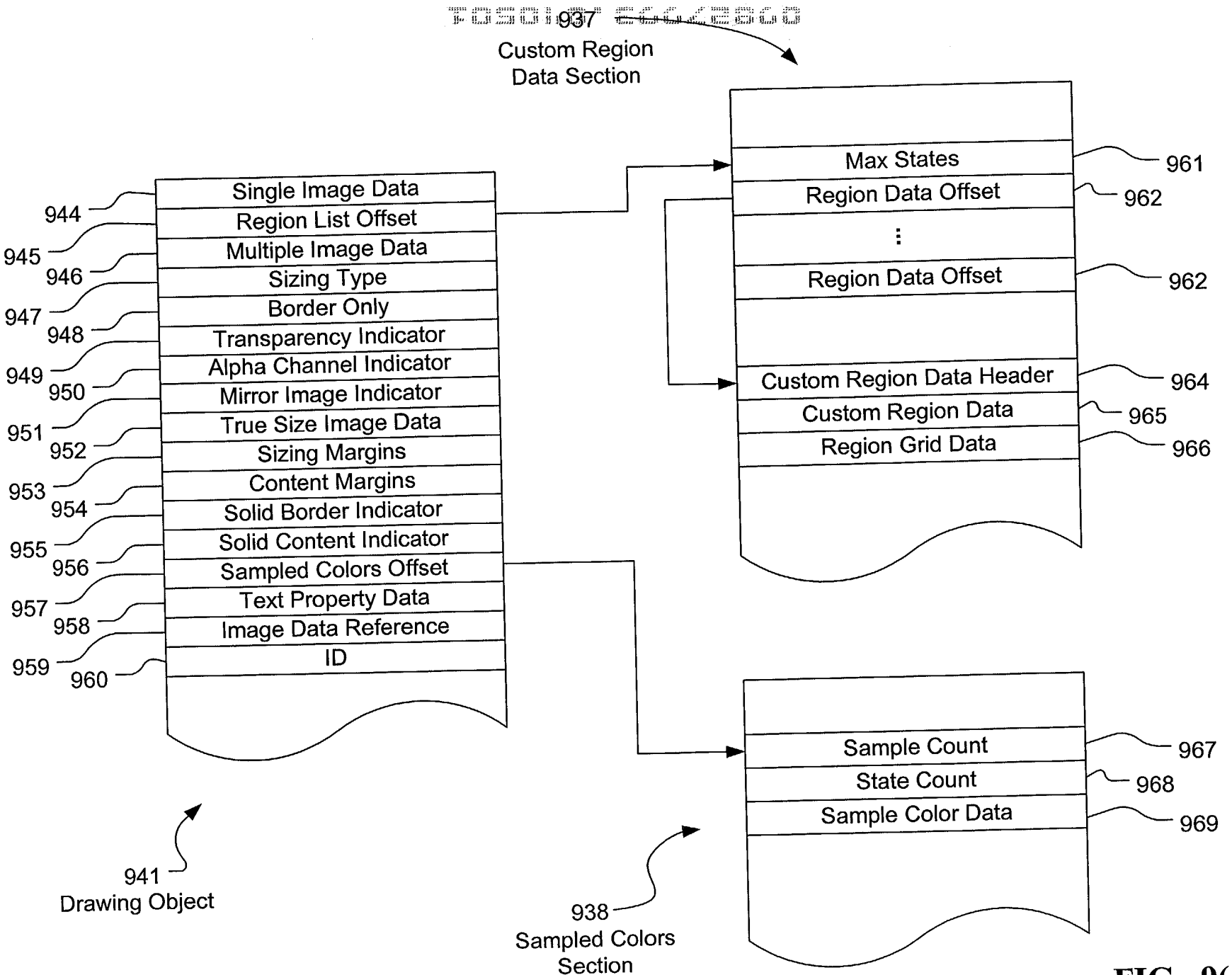
937
Custom Region Data Section
Single Image Data
Region List Offset
Multiple Image Data
Sizing Type
Border Only
Transparency Indicator
Alpha Channel Indicator
Mirror Image Indicator
True Size Image Data
Sizing Margins
Content Margins
Solid Border Indicator
Solid Content Indicator
Sampled Colors Offset
Text Property Data
Image Data Reference
ID
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
941
Drawing Object
Max States
Region Data Offset
Region Data Offset
Custom Region Data Header
Custom Region Data
Region Grid Data
961
962
962
964
965
966
Sample Count
State Count
Sample Color Data
967
968
969
938
Sampled Colors Section

FIG. 9(c)

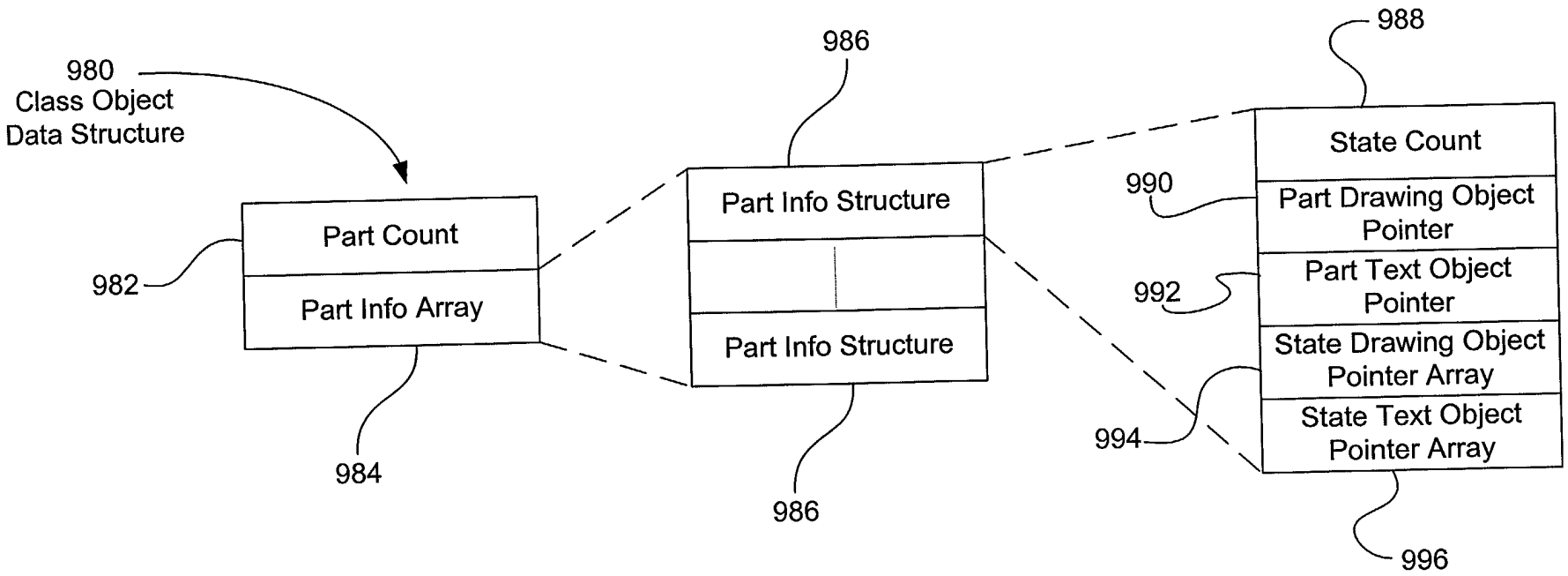
980
Class Object
Data Structure
Part Count
Part Info Array
982
984
986
Part Info Structure
Part Info Structure
986
988
State Count
990
Part Drawing Object
Pointer
992
Part Text Object
Pointer
State Drawing Object
Pointer Array
994
State Text Object
Pointer Array
996

FIG. 9(d)

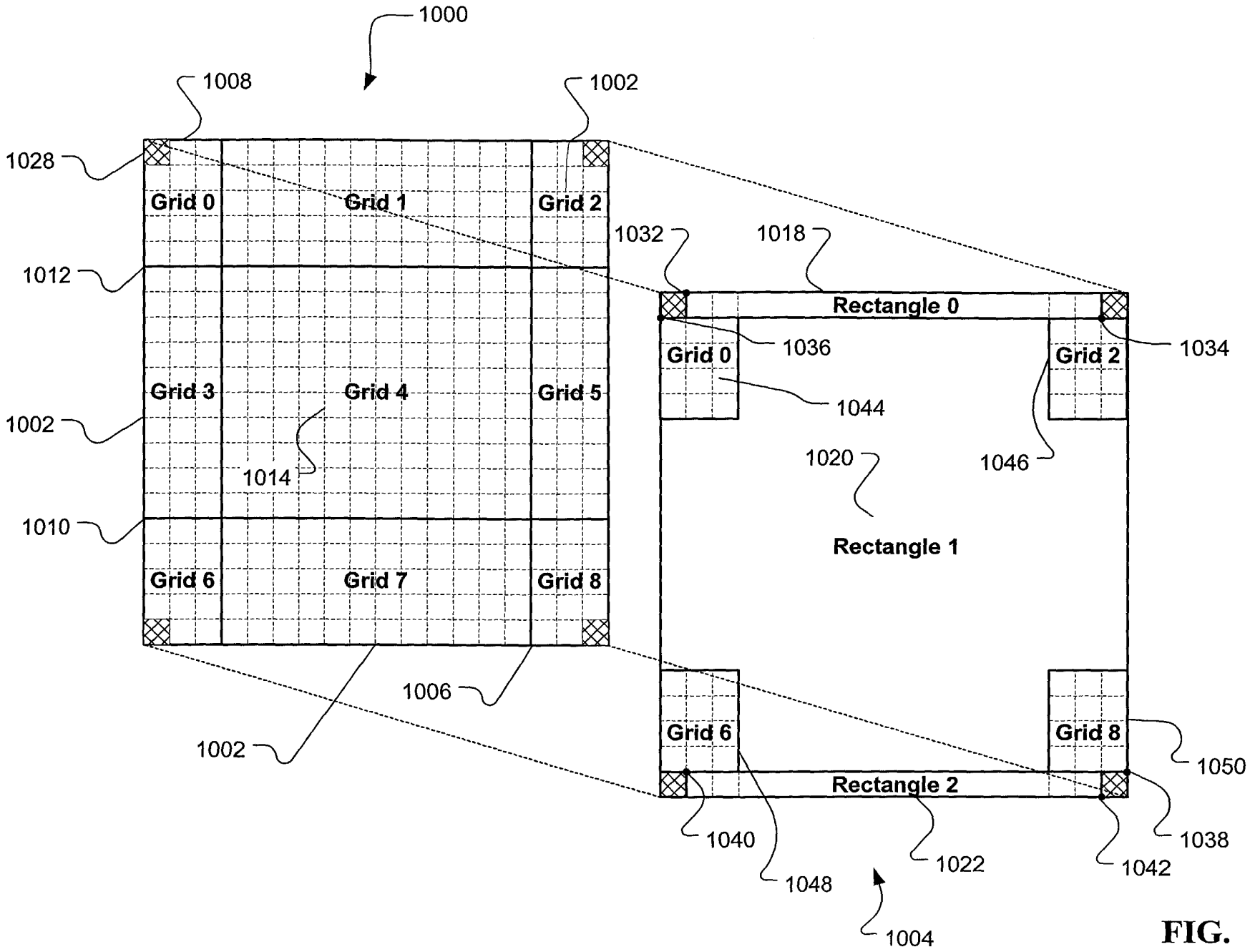
1000
1008
1002
1028
Grid 0
Grid 1
Grid 2
1012
Grid 3
Grid 4
Grid 5
1002
1014
1010
Grid 6
Grid 7
Grid 8
1006
1002
1032
1018
Rectangle 0
1036
1034
Grid 0
Grid 2
1044
1046
1020
Rectangle 1
Grid 6
Grid 8
1050
Rectangle 2
1040
1038
1022
1042
1048
1004

FIG. 10

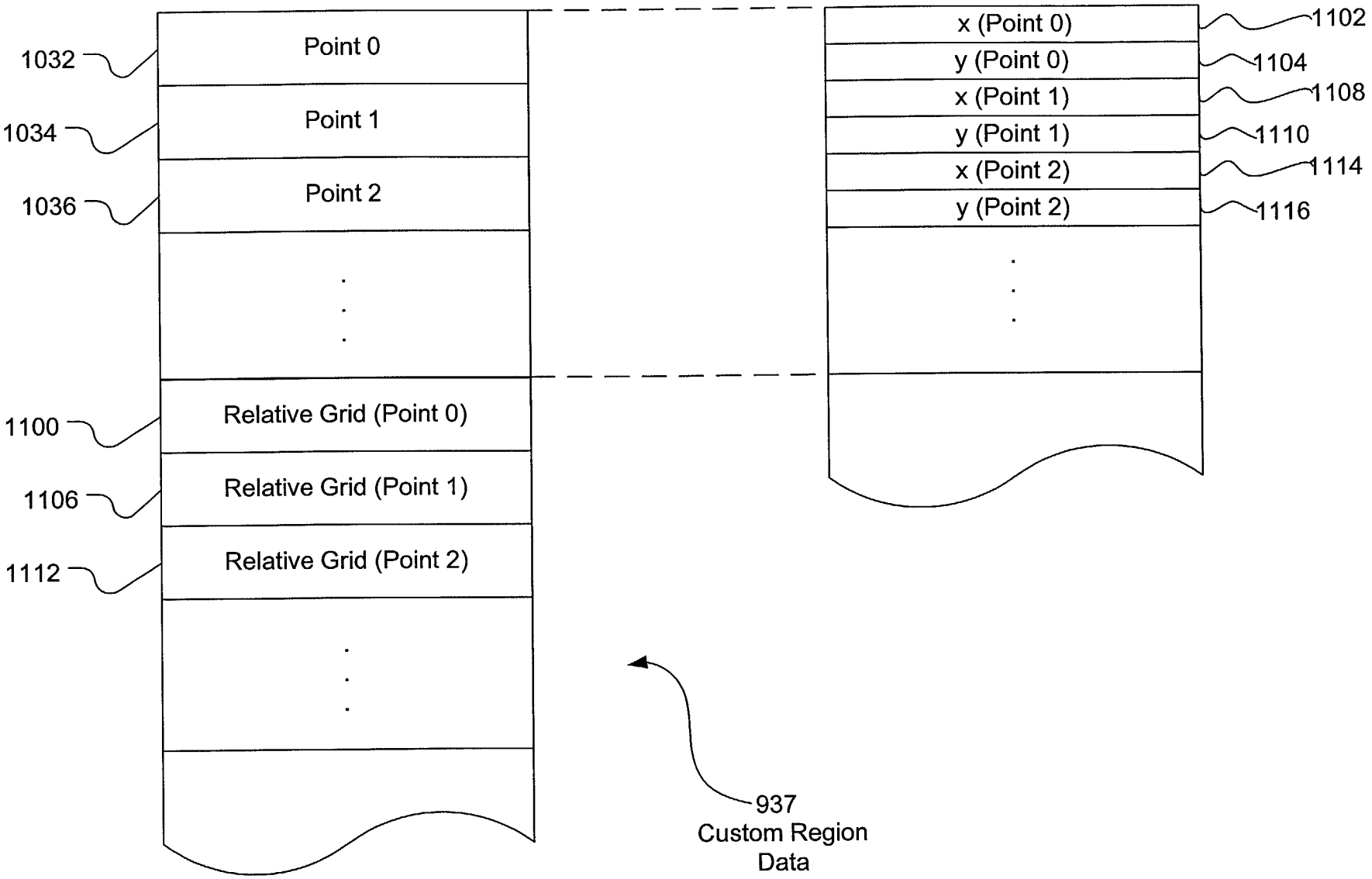
Point 0
Point 1
Point 2
Relative Grid (Point 0)
Relative Grid (Point 1)
Relative Grid (Point 2)
1032
1034
1036
1100
1106
1112
x (Point 0)
y (Point 0)
x (Point 1)
y (Point 1)
x (Point 2)
y (Point 2)
1102
1104
1108
1110
1114
1116
937
Custom Region Data

FIG. 11

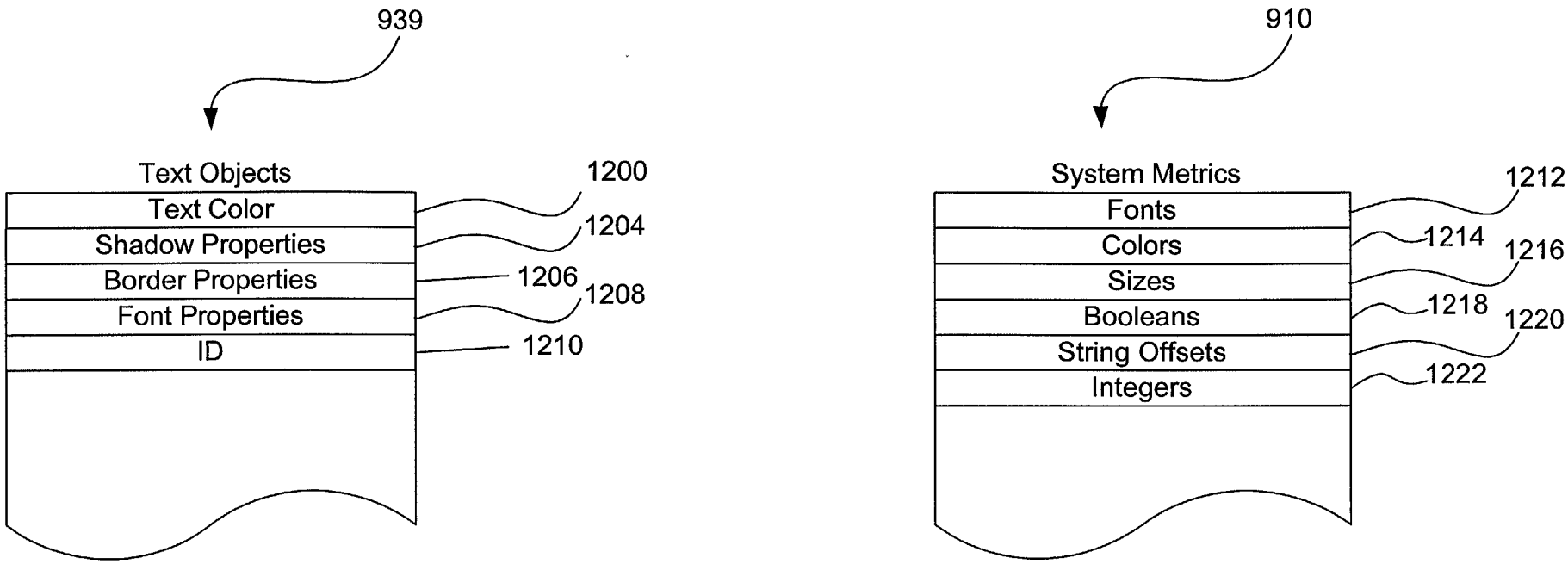
939
Text Objects
Text Color
Shadow Properties
Border Properties
Font Properties
ID
1200
1204
1206
1208
1210
910
System Metrics
Fonts
Colors
Sizes
Booleans
String Offsets
Integers
1212
1214
1216
1218
1220
1222

FIG. 12

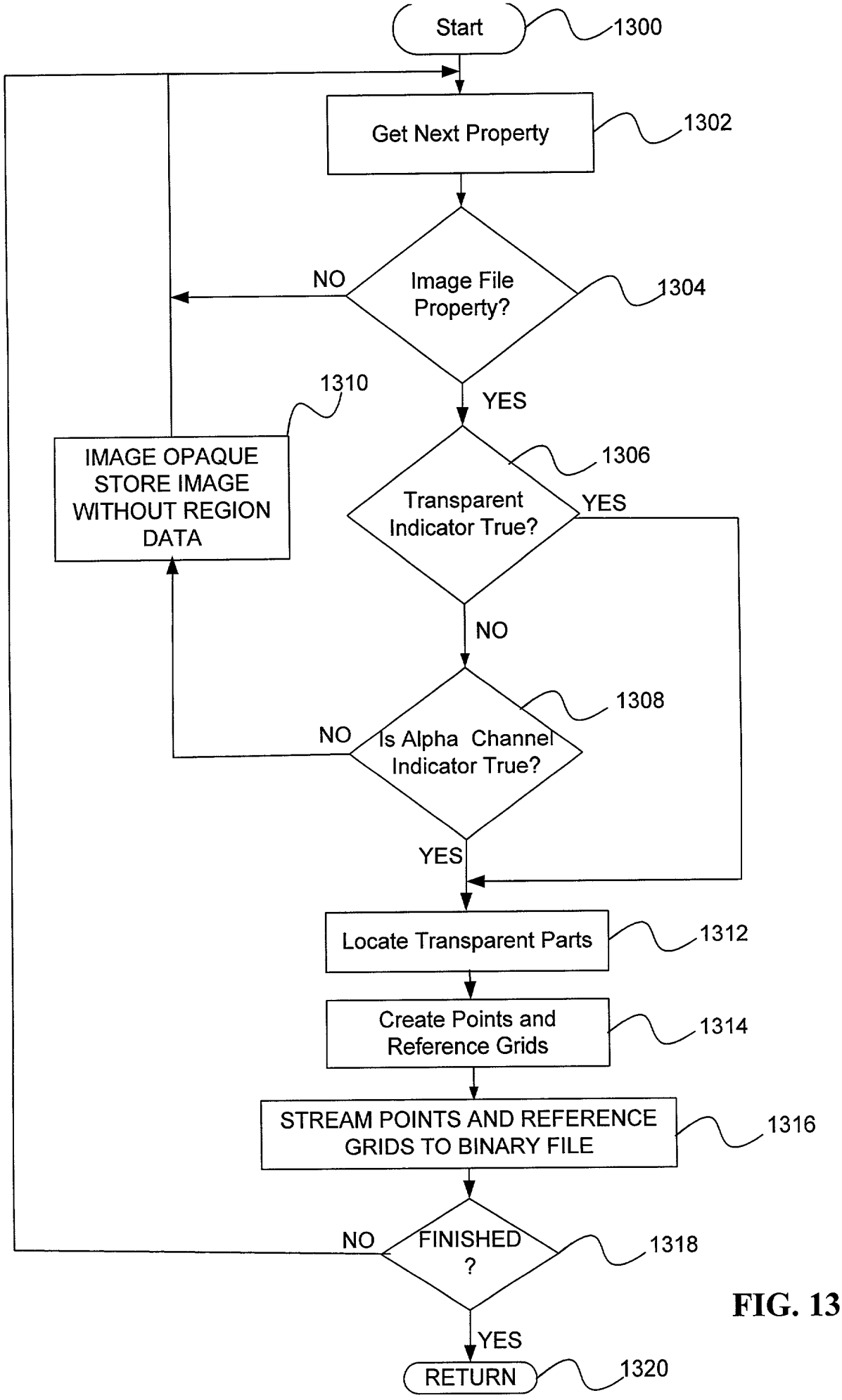
Start
1300
Get Next Property
1302
Image File Property?
1304
NO
YES
IMAGE OPAQUE STORE IMAGE WITHOUT REGION DATA
1310
Transparent Indicator True?
1306
YES
NO
Is Alpha Channel Indicator True?
1308
NO
YES
Locate Transparent Parts
1312
Create Points and Reference Grids
1314
STREAM POINTS AND REFERENCE GRIDS TO BINARY FILE
1316
FINISHED ?
1318
NO
YES
RETURN
1320

FIG. 13

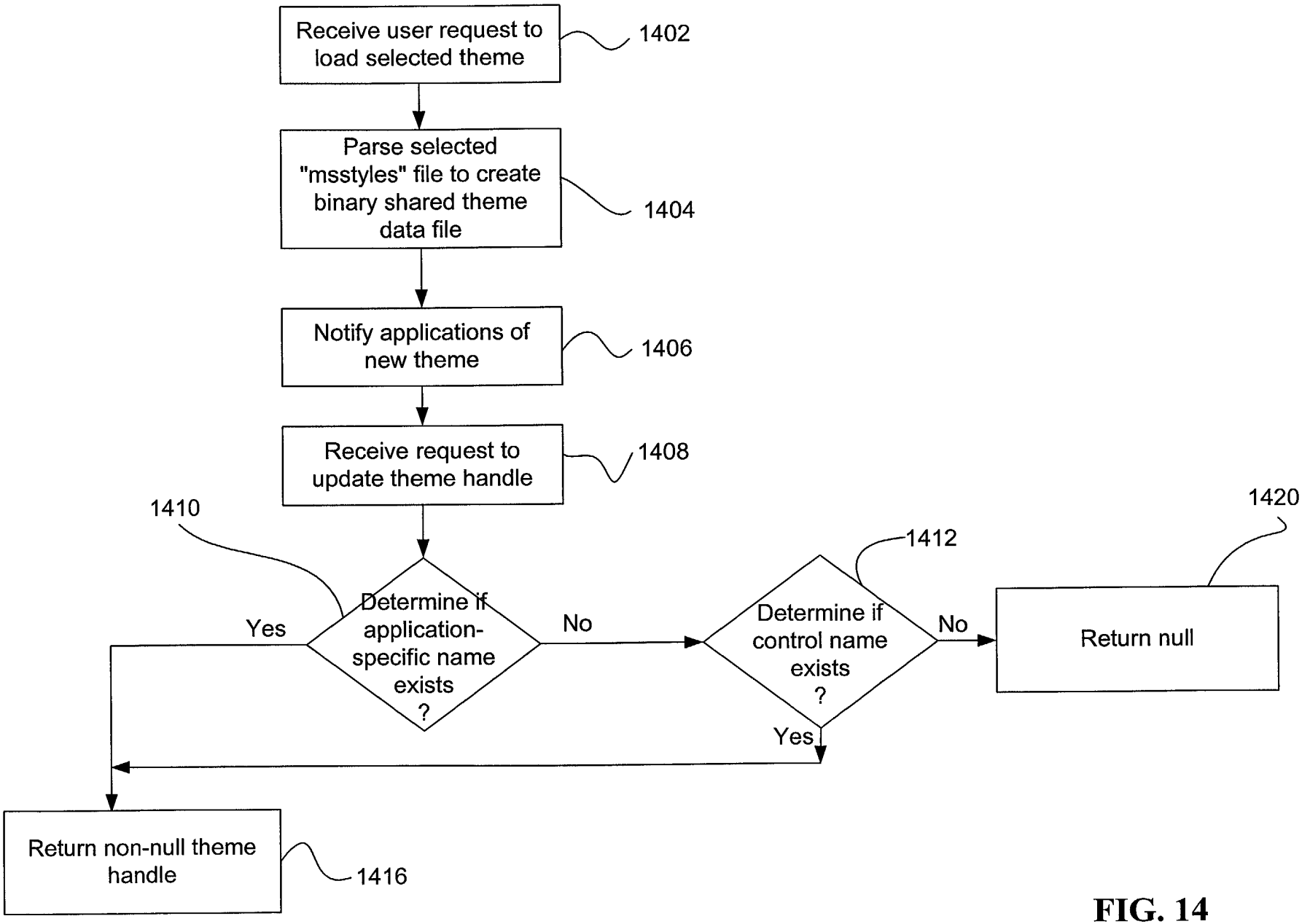
Receive user request to load selected theme
1402
Parse selected "msstyles" file to create binary shared theme data file
1404
Notify applications of new theme
1406
Receive request to update theme handle
1408
1410
Determine if application-specific name exists ?
Yes
No
1412
Determine if control name exists ?
No
1420
Return null
Yes
Return non-null theme handle
1416

FIG. 14